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| EXAMINER |
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WONG, WARNER

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| ART UNIT | PAPER NUMBER |
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2616

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|----------------------------------------|------------|---------------|
| 3 MONTHS | 01/08/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/960,008

Applicant(s)

MORALES ET AL.

Examiner

Warner Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 12-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,12-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3-9 and 12-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grob (US 6,894,994) in view of Dolan (2002/0057653).

Regarding claim 1, Grob ('994) describes a wireless communications system communicating packet data bearer traffic between a Mobile Station (MS) and a CDMA/IS-2000 (first type) system Base Station (BS) (fig. 5, 6A), where it may determine if a handoff is required to a High Data Rate (HDR)/1xEV (second type) system BS (fig. 5, 6A).

Grob lacks what Dolan describes:

In response to determining that the handoff is required, sending a message from the first base station to the second base station, the message indicating to the second base station that handoff is required (fig. 6, "source transfer request" from source BS to target BS via MSC).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to incorporate that message sent from one BS to another regarding to a corresponding handoff.

The motivation for combining this teaching is that it allows for reaching an agreement of the handoff type before the handoff procedure is commenced (Dolan, paragraph 41).

Regarding claims 3, 6 and 8, Grob and Dolan combined describe all limitations set forth in claim 1. Grob ('994) further describes that the (first) CDMA/IS-2000 (col. 24, lines 17-35, col. 26, lines 18-24) BS or an HDR/1xEV (col. 23, lines 54-55) BS communicates bearer traffic with the MS.

Regarding claims 4-5, Grob and Dolan combined describes all limitations set forth in claim 3. Grob ('994) further describes the handoffs determination may be from a CDMA/IS-2000 BS to an HDR/1xEV BS (col. 24, lines 23-26).

Regarding claims 7 and 9, Grob and Dolan combined describe all limitations set forth in claims 6 and 8 respectively. Grob ('994) further describes the handoffs determination may be from a HDR/1xEV BS to a CDMA/IS-2000 BS (col. 24, lines 23-26).

Regarding claim 12, Grob and Dolan combined describe all limitations set forth in claim 1. Dolan further describes sending another message from the HDR (second) BS to the CDMA/IS-2000 (first) BS to initiate a handoff procedure (Dolan, fig. 6, "source transfer acknowledgement" messages from target BS to source BS via MSC).

Regarding claim 13, Grob and Dolan combined describe all limitations set forth in claim 12. Dolan further describes sending a further message from the first base station to the second base station to indicate that the mobile station has been directed

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to hand off to the second base station (fig. 6, "source transfer commit" messages from source BS to target BS via SDU).

Regarding claim 14, Grob and Dolan combined describe all limitations set forth in claim 1. Dolan further describes that the message comprises sending the message over a link between the first BS and the second BS (fig. 6, from Source BS to MSC to target BS).

Regarding claim 15, Grob and Dolan combined describe all limitations set forth in claim 1. Grob further describes the handoff mechanism between the two systems is similar to the handoff between IS-95 and AMP (analog) systems, which may be a hard handoff (column 24, lines 33-35).

Regarding claim 16, Grob ('994) describes a wireless communications system (apparatus) communicating packet data bearer traffic between a Mobile Station (MS) and a CDMA/IS-2000 (first type) system Base Station (BS) (fig. 5, 6A), where it may determine if a handoff is required to a High Data Rate (HDR)/1xEV (second type) system BS (fig. 5, 6A).

Grob lacks what Dolan describes:

an interface to a second base station system (fig. 1, lines from BS #110 to MSC #102 and line #105);

a controller adapted to communication bearer traffic for a packet-switched communication with a mobile station (fig. 1, call controller #112 interacting with MS #160).

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the controller adapted to further exchange messaging with the second base station system through the interface to perform a handoff of the packet-switched communications session from the first base station system to the second base station system (fig. 1 and fig. 6, "source transfer request" message" from source BS to target BS via MSC).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to incorporate that message sent from one BS to another regarding to a corresponding handoff. The motivation being that it flexibly allows support for a multi-vendor wireless system supporting different interconnection protocols (Dolan, paragraph 8).

Regarding claims 17 and 18, Grob and Dolan combined describe all limitations set forth in claim 16. Grob and Dolan further describe a hybrid system including a CDMA/IS-2000 format system (with controller) which supports handoffs similar to that between IS-95 and AMPS systems (i.e. hard handoffs) (fig. 5, 6a-c; column 24, lines 17-35, col. 26, lines 18-24).

Regarding claims 19 and 20, Grob and Dolan combined describe all limitations set forth in claim 16. Grob further describes a hybrid system with a HDR/1xEV system, including a HDR/1xEV (second) BS and controller (fig. 5 & 6).

Regarding claim 21, Grob and Dolan combined describe all limitations set forth in claim 16. Dolan further describes the controller may send (exchange) a Handoff (HO) Request message to the second BS system through the interface (fig. 6, "source transfer request" messages from source BS to target BS via MSC).

Regarding claim 22, Grob and Dolan combined describe all limitations set forth in claim 16. Dolan further describes the controller may receive (exchange) handoff-related messages from the second BS for a handoff (fig. 6, "source transfer acknowledgment" messages from target BS to source BS via MSC).

Regarding claim 23, Grob and Dolan combined describe all limitations set forth in claim 16. Dolan further describes that the controller may send a Begin Forward Traffic (further message indicating MS directed to handoff) message from the first BS to the second BS (fig. 6, "Source transfer commit" messages from source BS to target BS via SDU).

Regarding claim 24, Grob describes a hybrid packet-data (packet-switch) system (official notice taken that it may be implemented with a storage medium article containing instructions) (fig. 5, col. 9, lines 55-61) with a (first) CDMA/IS-2000 (protocol) BS that exchanges CDMA/IS-2000 signaling with MS (fig. 6A) and determines if a (required) handoff to a (second) HDR (protocol) BS (fig. 6A)

Grob lacks what Dolan describes:

exchanging messages with the second bases station system through a link between the first and second base station systems to perform the handoff (fig. 6, "source transfer request" and "source transfer acknowledgement" messages).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to incorporate that message sent from one BS to another regarding to a corresponding handoff. The motivation being that it flexibly allows

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support for a multi-vendor wireless system supporting different interconnection protocols (Dolan, paragraph 8).

Regarding claims 25 and 27, Grob and Dolan combined describe all limitations set forth in claim 24. Grob ('994) further describes a BS can be within a CDMA/IS-2000 system or HDR/1xEV system, where it (with instructions) communicates IS-2000 or HDR/1xEV signaling with the MS (fig. 5, 6a-c; col. 3, 1-5; col. 9, lines 55-61; col. 26, lines 18-24).

Regarding claims 26 and 28, Grob and Dolan combined describe all limitations set forth in claims 26 and 27 respectively. Grob ('994) further describes the (first) CDMA/IS-2000 or HDR/1xEV BS (with instructions) which will determine the (required) handoffs from the IS-2000 BS to a HDR/1xEV BS or vice versa (fig. 5, 6a-c; col. 24, lines 17-35, col. 26, lines 18-24).

Regarding claim 29, Grob and Dolan combined describe all limitations set forth in claims 26 and 27 respectively. Grob ('994) and Dolan further describes the system (article containing instructions) cause the first base station to exchange messaging by sending a message to the second base station system indicating that a handoff is required (Dolan fig. 6, "source transfer request" message).

Regarding claim 30, Grob and Dolan combined describe all limitation set forth in claim 1.

Grob lacks what Dolan describes:

sending the message comprises sending the messages over a link that directly connects the first base station and the second base station (Grob, fig. 7, where Handoff

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request and acknowledge message are sent directly over a link between the source and target BS).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to incorporate that message sent from one BS to another regarding to a corresponding handoff. The motivation being that it flexibly allows support for a multi-vendor wireless system supporting different interconnection protocols (Dolan, paragraph 8).

Regarding claim 31, Grob and Dolan combined describe all limitation set forth in claim 16.

Grob lacks what Dolan describes:

the interface allows the messaging to be sent from the first base station system directly to the second base station system (Grob, fig. 7, where Handoff request and acknowledge message are sent directly over a link/interface between the source and target BS).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to incorporate that message sent from one BS to another regarding to a corresponding handoff. The motivation being that it flexibly allows support for a multi-vendor wireless system supporting different interconnection protocols (Dolan, paragraph 8).

Regarding claim 32, Grob and Dolan combined describe all limitation set forth in claim 24.

Grob lacks what Dolan describes:

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the exchanging of messaging with the second base station through the link comprises exchanging the messaging with the second base station through the link that directly connects the first base station system to the second base station system (Grob, fig. 7, where Handoff request and acknowledge message are sent directly over a link/interface between the source and target BS).

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to incorporate that message sent from one BS to another regarding to a corresponding handoff. The motivation being that it flexibly allows support for a multi-vendor wireless system supporting different interconnection protocols (Dolan, paragraph 8).

Response to Arguments

2. Applicant's arguments filed June 28, 2006 have been fully considered but they are not persuasive.

The applicant's argues on p. 2, lines 19-25 that Dolan is teaching a handoff between base stations according to the same wireless protocol such as CDMA. The examiner respectively disagrees.

The examiner asserts that Dolan expresses that his invention overcomes base stations having different wireless protocols (paragraph 7, overcoming older base stations using older wireless technologies and are incompatible with newer base stations deploying new wireless technologies such as CDMA).

The applicant also argues on p. 3, lines 1-8 that the motivation cited in the last Office Action does not support the combination of Grob and Dolan. Furthermore, the argument continues on lines 18-28 which asserts that such combination would significantly change the principle operation of Grob. The examiner respectfully disagrees.

The examiner has provide another motivation in combining Grob with Dolan, which indicates an advantage of base station of type 1 to notify another base station of type 2.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 5:30AM - 2:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Warner Wong
Examiner
Art Unit 2616

WW

A handwritten signature in cursive script, appearing to read "Wing Chan", with a long horizontal flourish extending to the right.

WING CHAN
SUPERVISORY PATENT EXAMINER